

H.A

Notice of Allowability

Application No.

10/737,121

Examiner

Joseph Nguyen

Applicant(s)

GOTOH ET AL.

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on 03/13/2006.
2. ☒ The allowed claim(s) is/are 1,3,4,8-16 and 26-63.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
 Paper No./Mail Date 4/21/06, 03/13/06, 01/07/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
 Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows: cancel claims 17-22.

Allowable Subject Matter

Claims 1, 3-4, 8-16 and 26-63 are allowed.

The following is an examiner's statement of reasons for allowance:

The reference (s) of record do not teach or suggest, either singularly or in combination at least the limitation of "wherein in the contact interface between said aluminum alloy film and said first electrode at least a part of alloy component constituting said aluminum alloy film exist as a precipitate extending through a concentrated alloy material of said aluminum alloy film, the concentrated alloy material existing at the contact interface between the metal oxide and the aluminum alloy film" for claims 1 and 26 , "wherein in the contact interface between said aluminum alloy film and said first electrode, at least a part of alloy components constituting said aluminum alloy film exists as a precipitate, wherein a particle of said precipitate has a size of more than 0.01 μm in major diameter and the number of the particles exceeds 0.13

Art Unit: 2815

particles/100 μm^2 ” for claim 38; “wherein said aluminum alloy film containing Ni has a Ni concentrated layer whose Ni content in a thickness of 1 to 10 nm from the surface of said aluminum alloy film is not more than the Ni content inside the aluminum alloy film plus 8 at%” for claim 50; “wherein in the contact interface between said aluminum alloy film and said first electrode, at least part of alloy components constituting said aluminum alloy film exist as a precipitate, wherein said aluminum alloy film contains Ni in the range of 0.1 to 6 at% as its alloy component, wherein a particle of said precipitate has a size of more 0.05 μm in major diameter and the number of the particles exceeds 21 particles/100 μm^2 ” for claim 55; “wherein in the contact interface between said aluminum alloy film and said first electrode, at least a part of alloy components constituting said aluminum alloy film exist as a precipitate, wherein said aluminum alloy film contains Ni in the range of 0.1 to 6 at% as its alloy component, wherein said aluminum alloy film further contains Nd and a particle of said precipitate has a size of more than 0.02 μm in major diameter and the number of the particles exceeds 33 particles/100 μm^2 ” for claim 60.

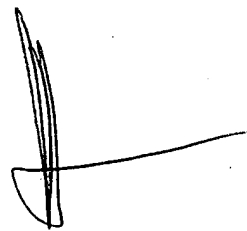
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (571) 272-1734. The examiner can normally be reached on Monday-Friday, 7:30 am- 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker can be reached on (571) 272-2298. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JN
April 28, 2006.

A handwritten signature in black ink, consisting of a stylized vertical stroke and a horizontal line extending to the right.

KENNETH PARKER
SUPERVISORY PATENT EXAMINER